

Chem 226/ Fall 2004

Dr. Rusay

Report Form

Minilab #2: Extraction

2. Refer to **Operation 13** Liquid-Liquid Extraction pp. 602-608. An analgesic sample thought to contain 500 mg of acetanilide was dissolved in 100 mL of water to remove all of the sugar binder. The entire amount of acetanilide was to be recovered through an ether extraction. One student used 50 mL of ether and extracted the water layer one time. A second student also used 50 mL of ether but divided it in half and extracted twice (2x 25 mL). Would the results be the same or not? If not, which student had the better procedure. The partition coefficient for acetanilide in ether versus water is $K = 10.3$; briefly explain your answer.